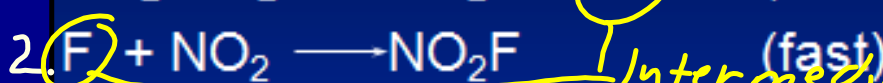
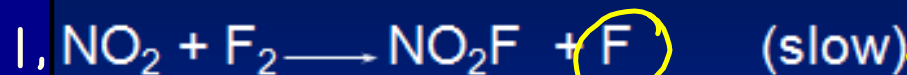


For

Reaction Mechanisms



The proposed mechanism is

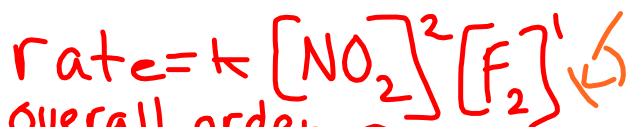


rate determining step.

Intermediate

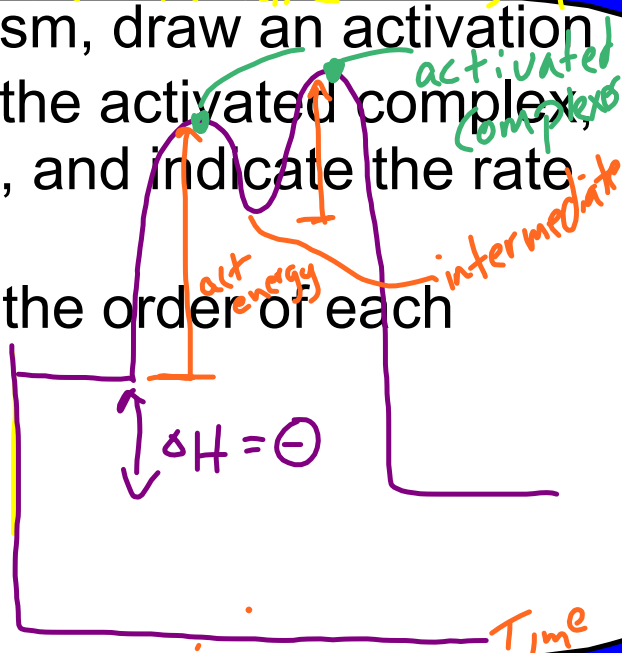
For the given mechanism, draw an activation energy diagram and label the activated complex, the intermediate(s), the ΔH , and indicate the rate determining step.

What is the overall order, the order of each reactant and the rate law.



Overall order = 3
order in $\text{NO}_2 = 2$

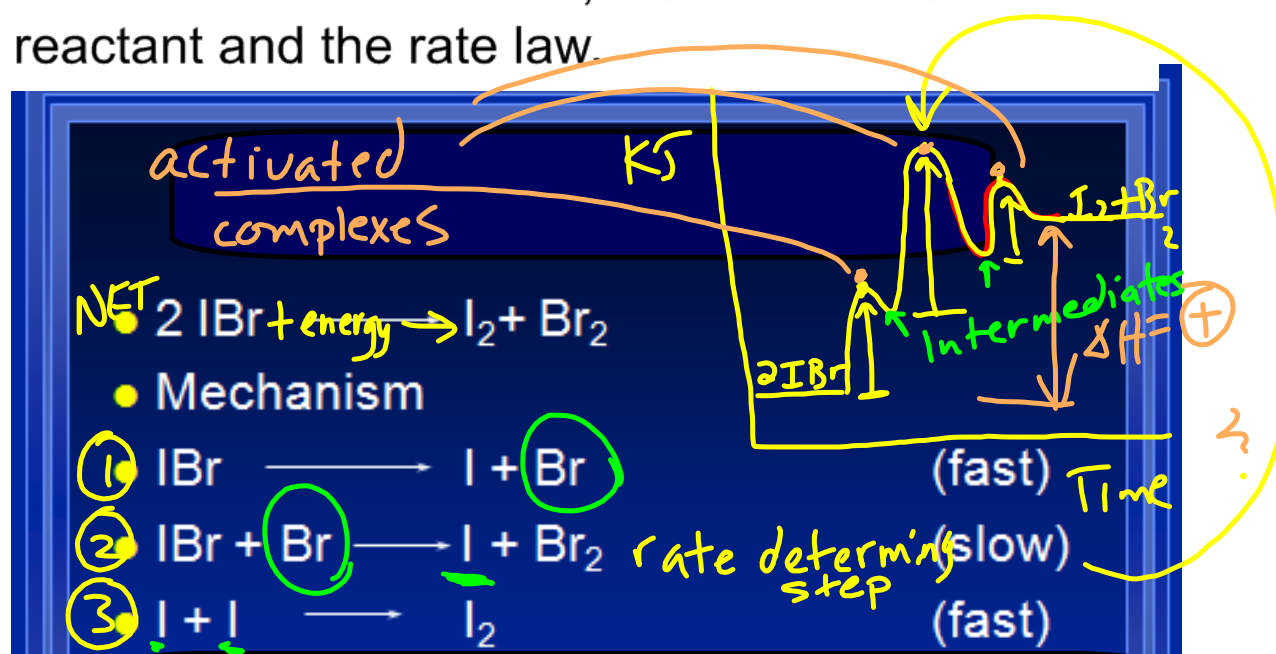
order in $\text{F}_2 = 1$



Example 2 Endothermic $\Delta H = +$

For the given mechanism, draw an activation energy diagram and label the activated complex, the intermediate(s), the ΔH , and indicate the rate determining step.

What is the overall order, the order of each reactant and the rate law.



$$\text{rate} = k[\text{IBr}]^2$$

overall
order = 2

order in $\text{IBr} = 2$